Parry Sound District Fisheries Management Plan

1987 - 2000

Draft

Ontario
Ministry of Natural Resources

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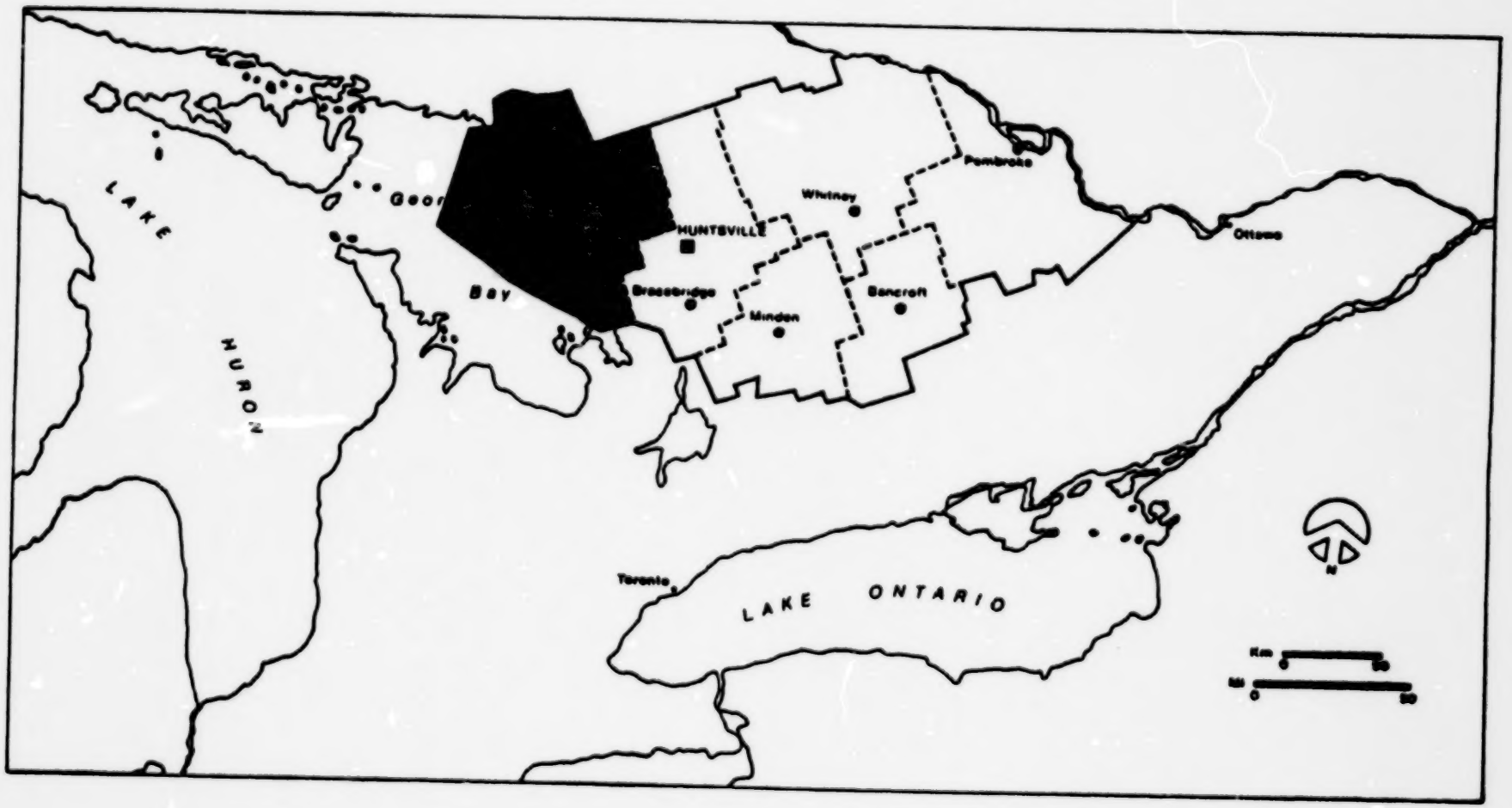
FIG 1: REGIONAL SETTING

PARRY SOUND DISTRICT
ALGONQUIN REGION



FOREWORD

The overall goal for fisheries management in Ontario as stated by the task force on Strategic Planning for Ontario fisheries is: "to provide opportunities for outdoor recreation and resource development for the continuous social and economic benefit of the people of Ontario and to administer, protect and conserve public lands and waters" to ensure preservation of fisheries resources.

To this end, Parry Sound has prepared this Draft Fisheries Management Plan identifying pertinent resource information as well as those management strategies and tactics which have been selected to guide fisheries management efforts within Parry Sound District over the long-term (1987-2000). In addition, Section 4 of this Plan outlines the short-term direction, the specific actions to be implemented within the initial five year period (1987-1991).

This Plan incorporates the direction of the District Land Use Guidelines and Lake Huron Strategic Fisheries Management Plan, the information contained in the District's Background Information, Problems and Issues and Optional Management Strategies document, and public response to background documents. An opportunity for public comment on this draft Plan will be provided prior to final adoption.

Aboriginal rights are not addressed as such in this Plan due to the fact that they are presently under negotiation. If and when fishing agreements are reached, they will be addressed in the future implementation of this Plan in accordance with Provincial policy.

Finalizing this Plan will benefit both the public and natural resource managers by providing guidelines aimed at the proper management of fisheries resources within the Parry Sound District. In addition, the Plan provides a means whereby performance can be measured.

Regional Director
Algonquin Region

District Manager
Parry Sound District

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this Management Plan is to evaluate, organize and priorize the implementation of fisheries management efforts to create a more efficient and orderly fisheries management program within Parry Sound District. In doing so, the Plan identifies the long-term management direction (to the year 2000) and outlines the specific short-term actions to be carried out within the first five year period. The Plan will be amended every five years by developing new Five Year Implementation Schedules and by revising aspects of the Plan that become outdated.

Annual work plans, identifying the specific projects to be undertaken during each year of the initial five year period, will be prepared and submitted for funding approval prior to the beginning of each fiscal year. Completion of projects identified in each annual work plan submission will depend on the funds allocated to the District.

This Plan applies to the 10,498 square kilometers (4,321 square miles) of lands and waters, including 3,960 square kilometers of eastern Georgian Bay, which fall within Parry Sound District, one of six administrative districts in the Ministry of Natural Resources' Algonquin Region. This Plan does not include or apply to the 564 square kilometers of Indian Reserve lands.

1.2 Planning Process

This Fisheries Management Plan was prepared in accordance with the overall resource planning and management system of the Ministry of Natural Resources.

Policy direction to the District Fisheries Management Plan was provided through the following sources:

- **Southern Ontario Co-ordinated Program Strategy** which provided general policies, targets and guidelines for resource management in southern Ontario;

- **Parry Sound District Land Use Guidelines (DLUG)** which applied provincial policies to the district, therein developing guidelines, objectives and strategies for fisheries and other resource management programs at the district level;

- **Strategic Planning for Ontario Fisheries (SPOF)** documents which provided a generalized policy framework, management principles, goals and objectives for managing fisheries resources in Ontario; and

- **Lake Huron Strategic Fisheries Management Plan** which provided broad objectives and strategies for managing fisheries resources in the waters of Lake Huron, including Georgian Bay.

This Plan, as well, highlights some of the background studies, planning exercises and analyses undertaken as part of the District fisheries management planning process. Background documents which were prepared leading to the development of this Plan are as follows:

- **Terms of Reference** - identified the general direction and timetable to be followed toward the completion of each stage of the planning process;

- **Background Information (Resource Inventory and Analysis) and Identification and Evaluation of Management Options** - provided a comprehensive analysis of available resource information related to local fisheries;

- **Background Information and Optional Management Strategies and Tactics: A Summary** - enabled the public to review and provide input on optional management strategies and tactics as identified by Ministry staff;

- **A Summary of Public Response to Parry Sound District Background Information and Optional Management Strategies and Tactics** - provided a summary of public concerns, their views on identified management strategies and tactics, and their perceptions of fisheries problems and of how local fisheries resources should be managed (see Appendix 1).

This Plan also recognizes the Ministry's overall commitment to integrated resource management. Comments and concerns identified by local interest groups and the general public were addressed in the development of this Plan. Overall, the public showed strong support for the strategies and tactics proposed for implementation within Parry Sound District. Additional problems identified by public groups included various detrimental affects of commercial fishing, water pollution and an increased need for public education, enforcement, size limits, stocking programs and water level controls (see Appendix 1).

2.0 DISTRICT FISHERIES PERSPECTIVE

2.1 District Physiography

Parry Sound District, one of six districts in the Algonquin Region, covers 11,062 square kilometers of lands and waters, of which 36 percent or 3,960 square kilometers, consists of the waters of eastern Georgian Bay (Figure 1 and 2). The District is comprised of 62 percent Crown land (including water) and 38 percent privately owned lands. The famous 30,000 Islands, the largest concentration of islands and shoals found in fresh water, are located in the "nearshore" waters of eastern Georgian Bay.

The District, in its entirety, lies within the Precambrian Shield (predominately granite bedrock). Soils covering the granite bedrock are characteristically thin, slightly acidic and nutrient deficient. The predominant tree species found in the District include eastern white pine, red pine, eastern hemlock, maple, yellow birch and oak (Great Lakes - St. Lawrence Forest Region).

There are eight major river systems which traverse or border the District, all flowing in a westerly direction and emptying into Georgian Bay. These include, from north to south, the Pickerel, Magnetawan, Harris-Naiscoot, Shawanaga, Seguin, Moon-Musquash and Gibson Rivers. The French River, which forms a large part of the northern boundary of the Parry Sound District, is not included in this Plan. The management of the French River fishery has been assigned to Sudbury District.

In addition to the major river systems. there are a number of smaller rivers which empty into Georgian Bay. These include, from north to south, the Key, Giroux, Shebeshekong, Boyne and Blackstone Rivers.

Although portions of Lake Joseph and Lake Rosseau lie within the Parry Sound District, management of fisheries resources within these waters is the responsibility of the Bracebridge District.

2.2 The Resource

The District, for evaluation and discussion purposes, is divided into two main fisheries resource bases: inland waters and eastern Georgian Bay.

Inland Waters

The inland waters are predominantly shallow to moderately deep, supporting warmwater and coolwater fish communities. The most common sport fish found in inland waters is the smallmouth bass, followed by largemouth bass, northern pike and walleye.

Georgian Bay

The shallower waters of eastern Georgian Bay are generally slightly alkaline, the exception being those waters in close proximity to the mouths of major rivers which empty into Georgian Bay. Waters in these areas tend to be slightly acidic.

A notable exception to the shallow waters which dominate the eastern Georgian Bay shoreline is Parry Sound (Big Sound), a deep, cold body of water having a maximum depth of 112 meters. As a result of intensive management efforts over the past six years, this body of water now provides a good sport fishery for lake trout and hybrid lake trout.

The shallower waters of eastern Georgian Bay contain a wide variety of fish populations. For instance,

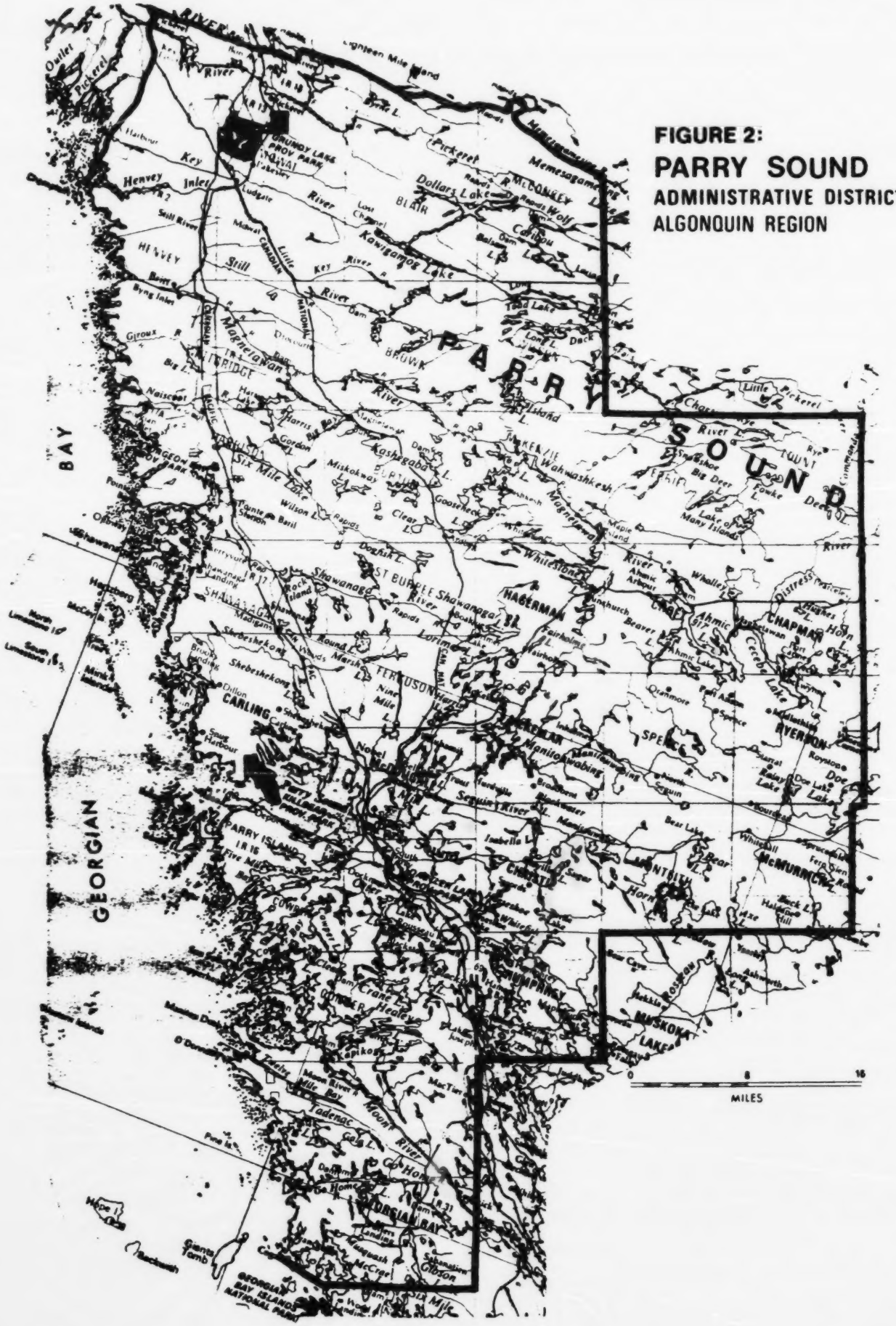

FIGURE 2:
PARRY SOUND
ADMINISTRATIVE DISTRICT
ALGONQUIN REGION

good populations of smallmouth bass and northern pike are found throughout the waters surrounding the 30,000 Islands; walleye are found in the Moon River - Woods Bay, Pointé au Baril, Bayfield and Britt areas; muskellunge are popular in the Twelve Mile Bay, Woods Bay, Sturgeon Bay and Magnetawan River areas; while largemouth bass, black crappie, yellow perch and smelt (spring spawning runs) are important in select areas along the eastern coastline.

In comparison, the deep, cold offshore waters of eastern Georgian Bay largely contain populations of alewife, smelt, deepwater cisco (chub) and ling. These waters currently offer virtually no sport fishing opportunities.

At present, the Georgian Bay commercial fishery is small compared to that of three decades ago. The decline of important fish populations and a Ministry buy-out program (1983-1984) reduced the number of licenced commercial fishermen to eight. The major species sought by commercial fishermen include deepwater cisco (chub), lake whitefish, lake herring and yellow perch.

2.3 Resource Use and Demand Projections

2.3.1 Inland Waters

Sport Fish

Analysis of current resource use indicates that 49,800 kilograms of fish are harvested providing a total of 143,600 recreational angling opportunities of within the District (Table 1). Demand projections to the year 2000 suggest an anticipated increase of 15 percent in both resource use and angling opportunities. Based on this assumption, harvests are expected to increase to 57,300 kilograms of fish providing a total of 165,100 angling opportunities by the year 2000.

Analysis of potential production capability of existing sport fish resources suggests that the existing fisherie resource base is capable of producing 150,600 kilograms of fish by the year 2000. This potential may not be realized due to impact of four main factors:

1. Some fish communities are unbalanced, requiring rehabilitation to ensure optimal fisheries production and resource use;

2. Easy access is not provided to all the fisheries resources, thereby reducing use of the resource;

3. Degradation of fish habitats, including acidification of district waterbodies, is hindering resource production capabilities of district fish communities; and

4. Some lakes are naturally barren of desirable sport fish species.

Baitfish

An estimated 18,600 dozen baitfish are presently harvested annually within the District. Although the capability of producing more baitfish within the District is recognized, the actual capability of local baitfish resources or the means of calculating this potential is not known at present.

Indications are that demand for baitfish will increase to the year 2000. Due to the economics of harvesting baitfish resources, many local baitfish dealers will

TABLE 1
PARRY SOUND DISTRICT
PRESENT RESOURCE USE AND PROJECTED DEMAND TO THE YEAR 2000

	CURRENT USE		PROJECTED DEMAND (Year 2000)		1983 D.L.U.G. TARGET		POTENTIAL RESOURCE CAPABILITY		REVISED TARGET	
	Angling Opportunities	Kilograms	Angling Opportunities	Kilograms	Angling Opportunities	Kilograms	Angling Opportunities	Kilograms	Angling Opportunities	Kilograms
A. EASTERN GEORGIAN BAY										
-Sport Fishery	119,600	77,300	149,500	96,600	1,764,000	547,500(a)	1,880,000	576,700(a)	149,500	96,600
-Commercial Fishery	—	84,100	—	141,900	—	182,500(b)	—	192,300(b)	—	141,900
-TOTAL	119,600	161,400	149,500(c)	238,500(c)	1,764,000	730,000	1,880,000	769,000	149,500(c)	238,500(c)
B. INLAND WATERS										
-Sport Fishery	143,600	49,800	165,100(d)	57,300(d)	266,000	110,000	351,900	150,600	165,100(d)	57,300(d)
C. ALL WATERS	263,200	211,200	314,600	295,800	2,030,000	840,000	2,231,900	919,600	314,600	295,800

(a) This figure represents 75 percent of the calculated potential annual fish yield.

(b) This figure represents 25 percent of the calculated potential annual fish yield.

(c) This figure represents a 25 percent increase in the present or current use of the fish resource.

(d) This figure represents a 15 percent increase in the present or current use of the fish resource.

continue to import baitfish resources from large wholesalers in southern Ontario.

2.3.2 Eastern Georgian Bay

Sport Fish

Present user demands have resulted in annual harvests of 77,300 kilograms of fish providing a total of 119,600 angling opportunities within the waters of eastern Georgian Bay. Assuming that demand will increase by 25 percent, annual harvests will increase to 96,600 kilograms of fish providing a total of 149,500 angling opportunities by the year 2000.

By comparison, these figures fall far short of the potential production capability of sport fish resources within Georgian Bay, a potential which is calculated to total 576,700 kilograms or 1,880,000 angling opportunities annually. This potential, however, is not being utilized due to the absence of desirable sport fish species in the open waters of Georgian Bay (i.e. the fish community is presently dominated by alewife, smelt, ling, suckers (white and long-nose) and deepwater cisco).

Increases in resource use are dictated by the availability of desirable fish species and not entirely by increases in human population. Review of the Big Sound situation has shown that prior to the re-establishment of the trout fishery, less use was being made of the Big Sound. As a result of management efforts to develop the trout fishery, the area now experiences higher demand and harvest yields. This is evidenced by angling opportunities having increased from approximately 8,000 in 1982 to 14,500 in 1985 following re-establishment of the trout fishery.

Managing for desirable fish species in the open waters of Georgian Bay may well result in a greater use of the potential resource capability within eastern Georgian Bay.

Commercial Fish

An estimated 84,100 kilograms of commercial fish are harvested annually from the waters of eastern Georgian Bay, with a projected harvest of 141,900 kilograms annually by the year 2000. The projected harvest is based on the present quota of 112,200 kilograms for quota species and the current harvest of 29,700 kilograms for commercial fish which have unlimited quotas.

It should be realized, however, that commercial fish quotas are subject to annual changes (increases or decreases) depending on changes in the abundance of various quota species. Furthermore, due to the absence of a better method for projecting harvests for species having unlimited quotas, present harvest figures were used for projected harvest figures. It is however recognized that in the immediate future, annual harvests for most species with unlimited quotas will be more dependent on market demand than species abundance.

In comparison, the potential commercial fish yield was calculated to total 192,300 kilograms of fish. Realization of this potential yield, however, will occur only if considerable management efforts are undertaken to establish a more desirable fish community within the open waters of Georgian Bay and/or a market is found for fish species such as suckers, ling and smelt.

The number of commercial fishing licences is not expected to increase beyond the existing ten licences by the year 2000. The

present management policy is to restrict additional licences into the commercial fishery.

2.4 Other Resource Issues

In preparing this Plan, a considerable number of other resource issues (non-fisheries) were considered to have potential impact on fisheries management programs.

For instance, there are numerous dams located throughout the District (see Map 1 inside the back cover) which are used to control water levels and flows for the purposes of recreation, production of electricity and/or flood control. The manipulation of water levels and flows can have a negative effect on fish communities during spawning and incubation periods and can restrict or prevent fish movement within a river system.

Additional non-fisheries resource issues which can have a profound impact on fisheries resources include forest management activities (e.g. road construction, harvest operations, etc.); shoreline developments (e.g. dredging, filling, docks, breakwalls, etc.) and major road and bridge construction and hydro related construction activities (e.g. building hydro line corridors, laying underwater cables, etc). Similarly, any form of water pollution, whether agricultural, industrial or municipal (e.g. garbage dumps) can alter water quality and/or fish habitats, thereby reducing fish yields.

As part of the ongoing integrated resource management process within Parry Sound District, all work plans (e.g. road construction, access points, etc.) which may cause environmental impacts are reviewed and approved by the District Management Committee. It is during this review that input from all other program services, including fisheries management, are considered for potential impacts of proposed projects. Continued co-operation in the recognition of fisheries concerns in this manner will assist efforts to preserve and protect existing and potential fisheries resources within Parry Sound District.

2.5 Problems and Issues

In managing fisheries resources within the District to meet anticipated demands, there are a number of problems which must be addressed. Co-operation between resource managers and users in addressing these problems will ultimately determine the District's ability to meet assigned targets.

Based on public response to earlier background documents, the major problems and issues affecting fisheries resources within Parry Sound District are as follows:

(i) Over-exploitation:

Over-exploitation occurs when harvest exceeds annual fish production of a particular species. Poor angling quality in readily accessible small and medium-sized lakes is most often the result of over-exploitation. In addition, heavy exploitation of top predator species such as walleye, pike or lake trout, often leads to the creation of an unbalanced fish community dominated by large populations of undesirable fish species such as rock bass, pumpkinseed, smelt, alewife and suckers.

During the late 1950's and early

1960's, commercial over-exploitation of walleye stocks on the west side of Shawanaga Island (Pointé au Baril area) contributed to a substantial decline in the number of walleye in that area. Despite the implementation of commercial harvest controls in 1979, only now does the walleye population in this area appear to be recovering. Lake Manitouwabing provides a second example where over-exploitation of the walleye sport fishery during the mid to late 1970's appears to have been the main contributing factor to its decline.

(ii) **Loss and Degradation of Fish Habitat (water level fluctuations, shoreline development, acid rain)**

Manipulation of water levels, for the purpose of hydro electric generation and flood control, has had a detrimental effect on fisheries within the District. Water level fluctuations during walleye spawning periods have caused problems on the Moon River and Wahwashkesh Lake and are suspected to be a contributor to problems on Lake Manitouwabing.

A second major source of habitat loss and degradation results from waterfront developments and alterations, particularly those undertaken by waterfront property owners.

A third area of concern centers around acidification. With the predominance of granite bedrock and thin soils throughout the District, many inland lakes and rivers have little ability to neutralize acid rain (buffering capacity). Small inland lakes, especially those in the upper parts of the watersheds, are particularly susceptible. Of the 292 waterbodies within Parry Sound District which are monitored by the Ministry of the Environment, 14 are classified as acidified and 83 as extremely sensitive to acidification. Sources of acid precipitation pollutants include Sudbury, the Ohio Valley and the north-eastern United States. Pollutant deposition rates in the District are among the highest in eastern North America.

(iii) **Absence of a Desirable Fish Community/Promotion of a More Desirable Fish Community**

Desirable fish communities usually refers to those fish species which experience high angling demand (e.g. largemouth bass, trout, walleye, etc.).

Since 1978, the District has established a number of self-sustaining largemouth bass populations in waters which previously had not contained a desirable fish community. Based on past success, the District intends to continue the program. First priority will go to those lakes which presently do not contain a sport fish population yet do contain excellent habitat for largemouth bass.

Few trout populations within Parry Sound District are self-sustaining at present. Desirable coldwater fish communities are presently maintained by planting (stocking) programs. These planting programs will be continued in selected waters until such time as desirable self-sustaining fish populations are established.

Walleye populations in many areas of the District have experienced declines for various reasons. In addressing these declines, the District intends to rehabilitate (rebuild) a number of the more historically important populations.

(iv) **Inadequate Fisheries Knowledge**

Fisheries management is relatively new and rapidly developing science and as such fisheries managers are hampered by inadequate knowledge pertaining to:

- -refinement of annual yields and species partitioning
- -the effects of species interaction
- -causes of stock depletion
- -specific effects of acid precipitation - reduction of fish productivity
- -development of a method for scientifically classifying important fish habitats
- -environmental factors affecting year class production
- -effects of regulatory measures such as "catch and release" fishing

(v) **Conflicts Among Users of the Fisheries Resource**

Competition for fishery resources within the District has resulted in real and perceived conflicts between commercial food fishermen, tourists and local residents. In order to reduce these conflicts, it may be necessary in the future to more explicitly allocate the existing and potential resource base to various user groups.

(vi) **Inability of Hatchery Reared Fish to Meet Demand**

Parry Sound District relies on hatchery reared fish to support angler demand for brook trout, rainbow trout, lake trout and hybrid lake trout and to rehabilitate some cool water (walleye) fisheries. However, hatchery reared fish are expensive, susceptible to disease and may not always be consistently available in the size and quantity required. To address fish quality and quantity problems, efforts are currently being directed to improving fish strains and sizes to enhance stocking success. In addition, efforts are also being directed to cage culture facilities, new hatcheries and the use of C.F.I.P. to meet demands on fishery resources.

Within Parry Sound District it must be recognized that stocking is not an effective long-term solution to meeting user demand in many situations. Alternative methods of meeting angler demands must be explored, with an emphasis on maintenance and rehabilitation of self-sustaining, naturally reproducing fish populations.

(vii) **Detrimental Effects of Non-native and Coarse Fish Species**

The introduction and proliferation of undesirable non-native (e.g. smelt, alewife, sea lamprey) and native coarse fish (e.g. suckers, rock bass, pumpkinseed, etc.) have had a detrimental effect on the more desirable sport fish and commercial fish species within Parry Sound District. An over-abundance of these species can result in a decreased production of more valued fish species and could impair rehabilitation efforts.

(viii) **Lack of Public Awareness**

Many members of the general public are not familiar with the fundamental concepts of fisheries management. This is evidenced in their erroneous belief that most fisheries problems can be solved by

stocking fish. Stocking on a very large scale is impractical given the large water resource base within the District. In many situations stocking is not cost-effective relative to maintaining fish populations through natural reproduction.

The public needs to be better informed as to the:

- -importance of maintaining important fish habitat (spawning, nursing, feeding areas, and migratory routes)
- -effects of over-exploitation (angling as well as commercial fishing)
- -productivity of aquatic ecosystems
- -realistic expectations of angling success
- -problems associated with illegal introductions of some fish species such as smelt, carp, sea lamprey, rock bass, etc.

The public should be encouraged to view themselves as owners of the fisheries resource and should feel responsible for contributing to its effective management.

3.0 MANAGEMENT DIRECTION

3.1 General Fisheries Management Objectives

Development of district fisheries management programs must be compatible with the overall goals, objectives and policy directives of the Ministry of Natural Resources. To provide direction in the management of the Province's natural resources, the following long-term goal was established:

- -to provide opportunities for outdoor recreation and resource development for the continuous social and economic benefits of the people of Ontario and to administer and conserve public lands and waters.

In refining this broad directive for application to fisheries management activities within southern Ontario, the following objective was established:

- -to provide opportunities for recreation and economic benefits consistent with the maintenance of healthy fish communities.

Specific direction in managing fisheries resources within the waters of Georgian Bay was also provided by the Lake Huron Strategic Fisheries Management Plan, based on the following objectives:

- -to restore balanced fish communities capable of self-maintenance which provide highly valued fishing opportunities and fish products;

- -to provide opportunities for recreation and economic benefits consistent with the maintenance of healthy fish communities; and

- -to provide an environment in the lake and its tributaries which can support self-maintaining populations of desired and wholesome fish species.

During the formulation of the District Land Use Guidelines for Parry Sound District, the following more specific fisheries management program objectives were established:

- -to meet sport fish demands within the limits of a wisely managed and rehabilitated resource;

- -to maintain a viable commercial industry;

- -to maintain current baitfish production; and

- -to prevent the extinction of any native fish species

As a result of public consultation and the collation and analysis of updated fisheries resource data, modification of the fisheries targets identified in the Parry Sound District Land Use Guildeines (DLUG) was considered to be warranted.

The sport fish and commercial fish targets in this Plan are considerably less than those identified in DLUG. The differences can be attributed to the methods and data used for calculating the

targets. The DLUG targets were based on the optimum use of the fisheries resources (potential yields). The sport fish targets presented in this Plan are based on either a 15 percent increase (inland waters) or a 25 percent (eastern Georgian Bay) in present demand. The commercial fish target, on the other hand, is based on present quotas for quota species and present harvests for non-quota species. The commercial fish harvest targets, however, are subject to quota changes to reflect changes in fish population abundance. In addition, it is recognized that annual harvests for most species with unlimited quotas will be more dependent on market demand than species abundance.

The calculated potential fish yields for eastern Georgian Bay were slightly more than the potential yields shown in DLUG due to a refinement in the numbers (Total Dissolved Solids and Mean Depth measurements) used to calculate potential yield. For inland waters, the potential yield differed because DLUG only recognized the potential yields for lakes while this Plan recognizes the potential fish yields for rivers and streams as well as lakes.

Although both targets and potential fish yields identified in this Plan differ somewhat from those identified in the DLUG, the overall fisheries management direction within Parry Sound District will not change.

The selected strategies and tactics identified in this Fisheries Management Plan deal primarily with:

- -protecting and maintaining important fish habitats;
- -preventing over-exploitation of fish populations capable of sustaining themselves;
- -rehabilitating important fish populations; and
- -creating a better informed public.

Emphasis in fisheries management will be on maintaining fisheries through natural reproduction rather than by stocking. Strategies and tactics to be implemented in the first five years (1987-1991) are presented in the Implementation Schedule. Implementation of the projects outlined in this Schedule will be dependent on allocation of sufficient funding and manpower.

3.2 Specific Fisheries Management Objectives, Targets and Strategies

Management objectives and targets for each specific fisheries group (sport, commercial, baitfish) within both inland waters and those of Georgian Bay originated from the District Land Use Guidelines. Refinement of these targets, based on public consultation and an analysis of updated background information, has led to the selection of management tactics (actions) intended to achieve identified management strategies. The identification of new and innovative ways to meet assigned fisheries targets is an ongoing process. As better tactics are identified, they will be assessed and implemented where warranted to ensure that optimum benefits from managing fisheries resources within Parry Sound District are realized.

3.2.1 Sport Fisheries Management

Objective:

To meet demand within the limits of a wisely managed and rehabilitated resource.

Target:

Inland Waters

To provide 165,100 recreational angling opportunities (57,300 kilograms of fish) by the year 2000.

Georgian Bay

To provide 149,500 recreational angling opportunities (96,600 kilograms of fish) by the year 2000.

Discussion:

Inland Waters

Sport fish targets for inland waters have been based on a predicted 15 percent increase in current resource use. Although it is estimated that the resource has the potential capability of providing 351,900 angling opportunities (150,600 kilograms of fish), the assigned target of 165,100 angling opportunities may not be realized as previously discussed (page 5).

The District in the future, intends to provide quality sport fishing opportunities in selected areas of the District (e.g. Parry Sound Wildlands and Restricted Access Area). In the development of targets for high quality angling opportunities within these areas, inventories will be undertaken to assess the potential of selected waters to provide high quality angling experiences. Analysis of the collected data would then lead to the designation of specific lakes for quality sport fishing opportunities.

Georgian Bay

At present, eastern Georgian Bay provides 119,600 recreational angling opportunities (77,300 kilograms of fish) consisting of 11 percent coldwater, 62 percent coolwater and warmwater and 27 percent coarse fish species. By the year 2000, demand is expected to increase to 149,500 angling opportunities. In order to meet anticipated demand, considerable rehabilitation efforts will be required to improve the quality and quantity of desired fish species.

Past review of fisheries resources within the District resulted in major rehabilitation efforts being initiated in the Parry Sound (Big Sound) in 1979, the Moon River in 1980, and the Shawanaga River in 1984.

Rehabilitation of the Big Sound coldwater lake trout fishery was initiated with lake trout (products from the native population) and hybrid lake trout. Recent fish surveys in the Sound indicate an increasing harvest of lake trout (native and planted) and hybrid lake trout. To protect native lake trout stocks, the District has closed a section of the Sound to lake trout and hybrid trout fishing year-round for a period of three to five years.

Evaluation of walleye rehabilitation efforts in the Moon River suggests an improved walleye fishery will be apparent by 1988. Similar walleye rehabilitation efforts in the Shawanaga River, through the assistance of a Community Fisheries Improvement Program, should produce positive results by 1989. Based on the apparent success of these efforts, the District is proposing to expand

its walleye rehabilitation program by initiating projects in upper Key River and Shebeshekong River in 1987.

Beyond the nearshore waters, the open waters of eastern Georgian Bay offer a great potential for providing additional sport fish opportunities within the Parry Sound District. Realization of this potential however, will depend on the establishment of a desirable top predator fish species (e.g. salmon) within these waters.

Provincial policy for the introduction of Pacific salmon in Lake Huron allows for the planting of chinook but not coho salmon. The capability of salmon introductions to become self-sustaining within Georgian Bay or the potential impact of their introduction into native fish communities is not yet fully understood (Anonymous, 1984 (ii)).

The District will consider the introduction of non-native coldwater species subject to the following two conditions being met:

(i) the non-native species (e.g. salmon) are needed to fulfill an important management objective and will enable the meeting of proposed sport fish targets; and

(ii) the non-native species will not seriously impact on native fish species.

Several management strategies have been developed to meet fishing objectives and targets for both inland and eastern Georgian Bay waters. The selected strategies and tactics are presented below, firstly according to the problem or issue to be addressed and secondly, according to the management zone within the District to which they apply (Section 3.3).

Problem/Issue #1: Over-exploitation

Strategy -Prevent Over-Exploitation

Tactics

-Implement the following on selected waters known to be over-exploited:

  -Reduce daily limits
  -Reduce seasons; especially during vulnerable periods (e.g. winter walleye season)
  -Implement fish sanctuaries or season closures
  -Control or restrict access
  -Implement size or selective size (slot) limits

-Encourage or designate catch and release only fishing
-Assess the biological impact of regulation changes
-Increase enforcement activity
-Designate specific waters for special treatment in the Ontario Fishery Regulations
-Discourage fish derbies which target on desirable fish species and/or direct fishing efforts to undesirable fish species
-Direct enforcement efforts to areas where most needed; prepare and implement a District Fisheries Enforcement Plan

Problem/Issue #2: Loss and Degradation of Fish Habitat

Strategy -Identify, Protect and Maintain Important Fish Habitats

Tactics

-Prepare and implement a District Fisheries Enforcement Plan
-Enforce legislation applicable to habitat protection (e.g. Fisheries Act, Public Lands Act, Beach Protection Act, Lakes and Rivers Improvement Act)
-Review applications for work (public and private) on or near water; where necessary,

conduct site inspections and make recommendations to ensure that important fish habitats are protected

-Review subdivision plans and severance applications on waterfront lands and make recommendations to ensure valuable fish habitats are protected.

-Review municipal planning documents and liaise with other agencies to ensure habitat protection

-Develop a methodology for scientifically classifying valuable fish habitat

Strategy -Maintain Water Levels and Flows during Critical Periods (i.e. spawning, incubation)

Tactics

-Evaluate existing operating plans for all MNR water control structures to ensure that consideration is given to spawning fish and incubating eggs; seek revisions to these plans where warranted

-Operate MNR dams according to approved operating plans; conduct field audits to ensure that the operating plans are being followed

-Work with the private sector in developing operating plans for private dams which will give consideration to spawning fish and incubating eggs; encourage adherence to the operating plans

Strategy -Rehabilitate Degraded Habitat

Tactics

-Identify and evaluate areas where habitats have been degraded

-Create new/alternate habitats suitable for spawning and egg incubation

-Enlarge existing spawning grounds

-Create access to former spawning sites

Strategy -Document Changes in the Acidity of the Aquatic Environment

Tactics

-Monitor pH and total inflection point (T.I.P.) alkalinity levels on a two to three year rotational basis in the five major rivers flowing into Georgian Bay; monitoring to be done before, during and after the spring freshet in co-operation with M.O.E. (Ministry of the Environment), D.F.O. (Department of Fisheries and Ocean)

-Maintain contact with other agencies and study groups who are doing acid rain studies in the Parry Sound District; record and file important data from the various studies

Problem/Issue #3: Absence of a Desirable Fish Community/ Promotion of a More Desirable Fish Community

Strategy -Rehabilitate Historically Important Fish Stocks

Tactics

-Conduct wild egg collection programs from which to produce rehabilitative planting stock

-Plant yearling hybrid lake trout and/or fingerling chinook salmon (i.e. by C.F.I.P.) in the open waters of Georgian Bay

-Undertake rehabilitative plantings through Ministry and C.F.I.P. programs

-Control or reduce harvest where exploitation is threatening rehabilitation

-Create or improve spawning facilities

-Monitor and document spawning activity and reproductive success of planted and natural fish

-Assess the effect of management actions through index netting, creel surveys, electrofishing surveys and visual assessment of spawning ground improvement work
-Conduct studies to determine the cause(s) of poor reproductive success
-Reduce the number of deleterious coarse fish through Ministry or C.F.I.P. programs where warranted

Strategy -Establish Self-Sustaining Populations of Largemouth Bass

Tactics

-Plant sub-adult and adult largemouth bass in selected lakes having suitable habitat but which do not presently support largemouth bass

Strategy -To Meet Demand for Coldwater Fishing Opportunities by Planting Trout in Waters which cannot Maintain Natural Reproducing Populations

Tactics

-Plant lake trout (in alternate years) in lake trout lakes which are not presently supporting self-sustaining populations of lake trout
-Plant F_1 splake or rainbow trout in marginal lake trout or brook trout lakes
-Plant brook trout in small headwater lakes which are suitable for brook trout
-Prepare a District Fish Stocking Plan

Problem/Issue #4: Inadequate Fisheries Knowledge

Strategy -Update Existing and Provide New Fisheries Knowledge

Tactics

-Undertake investigative studies to determine why important fish stocks are/have been depressed
-Conduct inventories of Sensitive Fisheries habitat by:

  -classifying and mapping existing fish habitat through interviews with knowledgeable MNR staff and public

  -verifying above identified sensitive habitat through the development and application of a scientific methodology which measures habitat quality

-Conduct fishing surveys (creel census) to determine angling effort, harvest and fishing quality
-Conduct intensive trap net and/or gill net surveys on select waterbodies to monitor status of fishery (relative abundance in community composition; age-class structure)
-Determine sport fishing quality for the three major sport fish species smallmouth bass, northern pike and walleye
-Determine the potential for establishing natural

self-sustaining walleye populations
-Conduct standard aquatic habitat inventory surveys
-Investigate and develop a survey designed to measure current sport fishing effort and harvest by species for each Fisheries Management Zone
-Encourage a voluntary reporting system for tourist outfitters who have outpost camps; reporting effort, catch and harvest of each group that uses the outpost camp

Problem/Issue #5 Conflicts Among Users of the Fishery Resource

Strategy -Promote Harmony Among Fishery Resource Users

Tactics

-Assign 75 percent and 100 percent of annual fish production, under the condition of a fully rehabilitated fishery, to the sport fishery of eastern Georgian Bay and inland waters, respectively
-Hold annual user group meetings to air conflicts/grievances
-Develop a fish allocation system based on an objective and careful examination of all relevant biological, social and economic factors.
-Assign selected larger remote lakes where tourist outfitters may establish outpost camps

Problem/Issue #6: Inability of Hatchery-Reared Fish to Meet Demand

Strategy - Utilize Alternate Sources of Fish Stocks

Tactics

-Continue fish culturing at the District level
-Encourage C.F.I.P. groups to culture and plant fish for rehabilitative purposes
-Purchase fish stocks from private industry
-Establish natural self-sustaining populations of largemouth bass in lakes which have good to excellent largemouth bass habitats through transfers between District waters
-Plant fish according to Provincial and Regional Guidelines
-Assess the success of the fish planting program on an ongoing basis

Problem/Issue #7: Detrimental Effects of Non-Native (e.g. alewife, smelt, sea lamprey, etc.) and Coarse (e.g. rock bass, carp, suckers, ling, etc.) Fish Species

Strategy -Promote the Utilization of Non-Native and Coarse Fish Species

Tactics

-Encourage fish derbies which target on coarse and non-native fish species
-Initiate public information campaigns concerning areas in which non-native and coarse fish are abundant; provide information on angling techniques, recipes, etc.
-Investigate and encourage innovative fishing techniques for non-native and coarse fish

Strategy -Control the Introduction of Fish Species which may be Harmful to the Native Fish Community

Tactics

-Regulate the baitfish industry and enforce current legislation

-Consider prohibition of live bait in waters which are most vulnerable to non-native or coarse fish species

Strategy -Rehabilitate Fisheries where Undesirable Species Introductions Have Occurred

Tactics

-Reduce undesirable species via coarse fish derbies, Ministry netting programs, or C.F.I.P. rehabilitation projects
-Plant top predator species to utilize undesirable fish as a forage base
-Reclaim (poison) and reintroduce desired fish community where feasible

Problem/Issue #8: Lack of Public Awareness

Strategy -Create a Well Informed Public Regarding Fisheries Management and Resource Utilization

Tactics

-Send registered letters to all construction contractors in the District regarding their responsibility (e.g. when working along shorelines): List of contractors to be upgraded and letters to be sent out once every three to five years; letters and lists are also be be forwarded to building inspectors of local municipalities
-Send information packages to waterfront property owners regarding MNR's interest in protecting fisheries habitat and the owners obligations in obtaining proper authority for doing work along shorelines
-Hold public meetings to discuss:

  -the results of investigative surveys conducted by MNR
  -Fisheries Management recommendations

-Prepare and distribute fact sheets, brochures, newsreleases etc., on subjects pertaining to fish and fishing
-Prepare an audio-visual program which covers all aspects of fisheries management; present the program to cottage associations, Township councils, user groups and the general public
-Develop a comprehensive fisheries education program as an integral part of a District external communications plan and prepare a District Fisheries Education Plan
-Promote the utilization of coarse fish

Strategy -Involve Public in Fisheries Management

Tactics

-Encourage cottager's associations, fishing clubs, tourist outfitters, and private individuals to get involved in fisheries management projects through C.F.I.P. and other volunteer programs
-Encourage public assistance and participation in matters relating to enforcement (Report a Poacher Program) by reporting violations of fishery regulations

3.2.2 Commercial Fisheries Management

Objective

To maintain a viable commercial fishing industry.

Target

To provide 141,900 kilograms of fish annually to the year 2000 (i.e. 105,000 kilograms of coldwater fish; 19,500 kilograms of coolwater and warmwater species; and 16,800 kilograms of coarse

fish).

Discussion

Commercial fish harvests are regulated throughout the Province by means of quota management. Quotas are established for individual species and fishing zones based on the best available information and technology and, in part, on past harvest records of commercial fishermen. Quota management allows commercial harvest levels to be regulated to reflect expanding or declining stocks and to recognize variations in year-class strength and species composition.

The commercial fishery within Parry Sound District will not necessarily consist of a specific proportion of the sustained yield of each fish species. The exact determination or proportions of sustainable yield for the sport and commercial fishery will be recommended by the Ministry's Lake Management Committee. For species which are sought by both commercial and sport fishermen (e.g. walleye and pike) it may be necessary to develop a sharing formula for each fish population.

Historically, until the 1940's, the commercial fishing industry in Georgian Bay was largely dependent on lake trout and whitefish. Subsequent declines in both species resulted in lake trout all but disappearing by 1956, while whitefish, despite a comeback between 1949 and 1956, by 1980 had dropped to its lowest level. Whitefish populations have recovered somewhat since 1980 in the southern part of the District but have continued to remain at low levels in the central and northern parts of the District.

At present, the open waters of Georgian Bay are dominated by alewife, smelt, ling and deepwater cisco (chub) of which only chub currently has a commercial value. More recently (1981), pink salmon were noted to inhabit the waters of Georgian Bay. Although salmon are not abundant in number, they are certainly not limited. If properly managed, their value as a potentially viable commercial fishery does exist. Realization of this potential, however, is dependent upon expanding current knowledge about the fishery and the establishment of management directions which will promote its continued maintenance within District waters.

In 1985, eight commercially licenced fishermen (10 licences) harvested 54,300 kilograms of quota species and 29,700 kilograms of fish having unlimited quotas (e.g. lake herring, round whitefish, etc.).

Commercial fishing quotas in the District are presently not being met as the existing Georgian Bay fish community is dominated by undesirable fish species. A major effort, therefore, will be required to rehabilitate the coldwater fishery to increase the number of desirable fish species in Georgian Bay.

The commercial fish target of 141,900 kilograms by the year 2000 is based on maintaining present annual commercial fish harvests for all species (i.e. quota and non-quota). Present harvest figures were used to determine this target due to the lack of a better means of calculating or predicting anticipated harvest levels for the year 2000. Specifically, it is difficult to predict when a more desirable fish community will be found in the open waters of Georgian Bay or to predict what future market demands will be for non-quota species.

Problem/Issue #1: Over-Exploitation

Strategy -Prevent Over-Exploitation

Tactics

-Adjust commercial fish quotas, based on assessment and monitoring studies, as required to control harvest within the limits of the available resource while facilitating rehabilitation
-Enforce the quota system

Problem/Issue #2: Inadequate Fisheries Knowledge

Strategy -Update Existing and Provide New Fisheries Knowledge

Tactics

-Determine, on an annual basis, the relative abundance of the major commercial fish species from the monthly returns (CF 1) provided by commercial fishermen
-Conduct index fishing surveys for lake whitefish and chub with standard index fishing nets as required
-Collect and prepare samples of important commercial fish for contaminant analysis
-Conduct catch sampling as required to facilitate the prediction of stock strength
-Collect data on sea lamprey scarring and wounding of primary species (e.g. whitefish)
-Maintain liaison with D.F.O. sea lamprey unit to update information regarding sea lamprey abundance and distribution

Problem/Issue #3: Conflict Among Users of the Fisheries Resource

Strategy -Minimize Conflicts Between Users

Tactics

-Assign 25 percent of annual production, under the conditions of a fully rehabilitated fishery, to the commercial fishery
-Hold annual user group meetings to air conflicts and grievances
-Minimize incidental catches of non-target species
-Promote the use of impounding gear (e.g. trap nets, hoop nets, etc.)

Problem/Issue #4: Detrimental Effects of Non-Native (e.g. alewife, smelt, sea lamprey, etc.) and Coarse Fish

Strategy -Promote the Utilization of Non-Native and Coarse Fish

Tactics

-Assist the commercial fish industry when possible in development of markets and harvest techniques for coarse and non-native fish
-Permit generous quotas for non-native and coarse fish species where warranted

3.2.3 Baitfish Management

Objective

To maintain current baitfish production.

Target

To provide, at a minimum, the present level of harvest of 18,000 dozen baitfish.

Discussion

There is at present little demand for additional baitfish harvesting opportunities in Parry Sound District. Most of the baitfish sold in the District are purchased from southern Ontario wholesalers and resold by local baitfish dealers. Although demand for baitfish is expected to increase, indications are that local baitfish dealers will continue to utilize outside sources to meet any anticipated shortfalls rather than increase local baitfish harvests.

To assist baitfish management efforts within the District, a block licencing system was initiated in 1986. A total of 113 blocks were established with licences generally being allocated on the basis of one block of land per baitfish fisherman. Each township in the District, with some exceptions, was divided into four blocks of more or less equal size. All waters within each block, however, were not necessarily included within the licenced area. A detailed map showing these blocks is provided in the Fisheries Background Information Document.

Problem/Issue #1: Inadequate Fisheries Knowledge

Strategy -Update Existing and Provide New Fisheries Knowledge

Tactics

-Obtain and document accurate information relating to baitfish harvests through the development of an improved reporting system
-Provide information on baitfish culture to interested individuals

Problem/Issue #2: Conflicts Among Users of the Fisheries Resource

Strategy -Minimize Conflicts Between Users

Tactics

-Restrict baitfish harvesting (condition of licence) on lakes where such activities may ave a detrimental effect on sport fishing
-Hold annual user group meetings to air conflicts/grievances

3.2.4 Provincially Rare and Endangered Species

Objective

To prevent extinction of any native fish species.

Target

To ensure no native fish species become extinct.

Discussion

Rare and endangered fish species include those species which have been identified by the Committee on the Status of Endangered Wildlife in Canada (C.O.S.E.W.I.C.).

The Committee is currently reviewing the status of fish species in Ontario for possible inclusion and protection under the Act. At present no fish species within Parry Sound District are recognized as being rare or endangered. The Committee, however, is reviewing the possible inclusion of lake sturgeon although as of yet they have not given lake sturgeon a "status" on the list.

While all pertinent legislation will continue to be actively enforced, efforts will also be directed to updating existing records as well as protecting those species which are classed as threatened, rare or endangered.

Strategy - Determine if any Rare or Endangered Fish Species Inhabit District Waters

Tactics

-Conduct surveys to determine if any endangered or rare fish species inhabit District waters
-Send any unknown fish specimen taken from District waters to the Royal Ontario Museum for positive identification
-Reduce the commercial fish quota for lake sturgeon to zero

3.3 Management Zones

General

For the purposes of fisheries management and in accordance with management zones identified in the District Land Use Guidelines, Parry Sound District has been divided into four fisheries management zones. These include: Eastern Georgian Bay, Multiple Resource Use Area, Restricted Access Area and Parry Sound Wildlands Area.

Management Zone 1 - Eastern Georgian Bay

A. Area Description

This zone encompasses all of the waters of Georgian Bay within the Parry Sound Administrative District and all tributary waters emptying into Georgian Bay, upstream to the first obstruction or barrier to fish migration.

The nearshore coastal waters of this zone contain 30,000 islands and many more shoals. This section of the bay is used by sport fishermen, hunters, cottagers, tourist lodge owners and boaters and to a lesser extent, by baitfish fishermen and scuba divers. The offshore deeper waters of this zone are used by commercial fishermen, yachting and sail boat enthusiasts and by commercial shipping interests.

The two most abundant fish species in the nearshore waters of this zone are the smallmouth bass and northern pike. Other warmwater and coolwater sport fish found along the coast include walleye, muskellunge, largemouth bass, black crappie and yellow perch. An exception to the shallow waters in the nearshore area is the deep cold body of water called Parry Sound or the "Big Sound" which supports a sizeable populations of lake trout and hybrid lake trout. The outer deep waters of this zone largely contain undesirable fish such as alewife, ling, smelt and suckers. The only valuable fish species found in the outer waters is the chub or deep water cisco.

B. Purpose and Rationale for the Management Zone

The problems and issues which specifically apply to this area include:

1) lack of a desirable coldwater fish community in the deep, open waters of eastern Georgian Bay;

2) declining walleye populations, i.e. Moon River, Shawanaga River, Bayfield, Groundhog (west side of Shawanaga Island); and

3) loss of significant fish habitat through human activity.

The District Land Use Guidelines provided specific direction regarding the management of the islands in this zone and the lands within 120 meters of the Georgian Bay shoreline. The main purpose was to protect on public land and encourage on private land the protection of the unique qualities of the Georgian Bay landscape.

Consistent with DLUG, the purpose of this zone for fisheries management is to provide:

-opportunities for commercial harvest of food fish
-protection and maintenance of unique Georgian Bay landscapes (e.g. protect important fish habitat)
-opportunities for commercial tourism
-a variety of sport fishing opportunities in the large open waters and nearshore waters
-some opportunities for commercial baitfish harvest
-opportunities for commercial aqua culture (i.e. experimental)

The rationale for establishing this zone is that:

-it is part of the Great Lakes (Lake Huron)

-the fish communities characteristically are more diverse than those found in inland waters

-management direction is provided by the Lake Huron Strategic Fisheries Management Plan

-the majority of the waters are alkaline (pH above 7) and well buffered (capable of neutralizing acid precipitation)

-the zone supports a commercial food fishery

-there is an absence of desirable fish community species within the open waters and selected nearshore waters

C. Fisheries Management Strategies and Tactics

Some of the more general strategies and tactics which apply within this zone and to others throughout the Parry Sound District are outlined in Section (3.2) (i.e. sport fish, commercial fish, baitfish and endangered species). Strategies to be applied which are specific to this zone are as follows:

-rehabilitate the trout fishery in the "Big Sound"

-rehabilitate the coldwater fishery (trout and/or salmon) in the open waters of eastern Georgian Bay

-rehabilitate historically important walleye populations (Moon River, Shawanaga River, Groundhog, Bayfield, Shebeshekong and upper Key River)

-maintain a viable commercial fishery

Management Zone 2 - Multiple Resource Management Area

A. Area Description

This zone includes much of the inland portion of the Parry Sound District. Lands within this zone are accessible by car for the most part, however, some of the more remote portions of this zone are accessible only by walking, canoeing and portaging or by small aircraft.

A variety of sport fish are found in this zone. These include walleye, largemouth and smallmouth bass, northern pike, muskellunge, lake trout, rainbow trout, brook trout, and F_1 splake.

B. Purpose and Rationale for the Management Zone

The problems and issues specific to this zone include over-exploitation, the loss or degradation of fish habitat and the introduction of non-native fish (e.g. smelt).

As outlined in DLUG, the purpose is to provide and encourage provision (private lands) of a wide variety of resource production and recreational opportunities. Consistent with DLUG, the purpose of this zone for fisheries management is to provide:

- -a variety of sport fishing opportunities at a reasonable quality
- -opportunities for commercial baitfish harvest
- -opportunities for commercial tourism

The rationale for establishing this zone is that:

- -most of this zone is accessible by road
- -almost all the permanent and seasonal residents live in this zone
- -almost all of the private land within the District is located in this zone
- -high exploitation and loss or degradation of fish habitat are the most serious problems in this zone

C. Fisheries Management Strategies

The major strategies unique to this zone are as follows:

- -protect and maintain important fish habitats
- -prevent over-exploitation
- -maintain coldwater fish populations by planting fish to provide diverse fishing opportunities
- -rehabilitate walleye fisheries (e.g. Ahmic Lake, Blackstone, Isabella, Wahwashkesh Lakes, Pickerel River system)
- -acquire more knowledge about the fish communities and habitats in the major rivers

Management Zone 3 - Restricted Access Area

A. Area Description

Lands within this zone are relatively inaccessible and are located at least 1.6 kilometers (1 mile) from the nearest existing all-weather road. Portions of several of the municipal townships within this management zone, including Mowat, Blair, McConkey,

Wallbridge, Harrison, Burton, McKenzie, Shawanaga, Carling, Ferguson, Ferrie, and Lount, are accessible only by small aircraft, on foot or by canoeing and portaging.

This zone is largely used for fishing, hunting, canoeing and timber extraction. There are relatively few cottages in this zone in comparison to Zones 1 and 2.

The predominant sport fish found in this zone are smallmouth and largemouth bass. Other species found in this zone include lake trout, walleye and northern pike.

B. Purpose and Rationale for the Management Zone

The biggest problem in this zone is the lack of knowledge about the fish communities and fish habitats in many of the zone's waters.

As outlined in the District Land Use Guidelines (DLUG), the Ministry intends to provide opportunities for recreation in a relatively remote setting and opportunities for resource extraction.

Public access for recreational purposes will be restricted to existing trails and to boat-in, fly-in or walk-in. New roads established for resources management and extraction will be closed to public recreational use; and roads constructed for resource management and extraction will meet the following criteria:

-access to each of the four remote areas will include no more than one primary access road. All other roads will be winter haul roads or temporary summer roads; and

-roads which completely cross a remote area or which cross major river systems within a remote area will not be permitted, that is, no new north/south or east/west road linkages will be permitted.

Consistent with the DLUG, the purpose of this zone for fisheries management is to provide:

-opportunities for high quality sport fishing in a remote setting

-opportunities for harvesting baitfish

The rationale for establishing this zone is that:

-a large portion of this zone consists of Crown or public lands

-the lands and waters are remote but do have limited access

-relatively low fishing pressure is exerted on the waters in this zone

C. Fisheries Management Strategies

In addition to the general fisheries management strategies which apply to the whole district, there are some specific strategies which apply to this zone. These include:

-acquiring scientific knowledge about the fish communities and fish habitats on selected lakes within this zone

-providing quality angling on designated waters within this zone

Management Zone 4 - Parry Sound Wildlands

A. Area Description

This is a remote area which includes all of Brown Township approximately one-third of Wilson Township, and a small part of Wallbridge, Burton and McKenzie Townships (Map 2). There is no road access to this area.

This zone is largely used for fishing, hunting, canoeing and timber extraction. There are a few cottages located within this zone (Magnetawan River) and one tourist outpost camp (Portage Lake, Brown Township).

Important sport fish in this zone include largemouth and smallmouth bass and northern pike.

B. Purpose and Rationale for the Management Zone

As outlined in DLUG, the intent is to provide both opportunities for wilderness-like recreation and tourism (including cottaging, canoeing, hunting and fishing), and opportunities for resource development and use (including forest management and mineral exploration and development) and to protect significant natural features. A modified management area will be provided along waterways comprising a 60 meter natural zone and another 60 meter zone within which timber harvesting will be carefully regulated and no extraction of sand and gravel will be permitted. Other timber extraction restrictions in this area are identified in the DLUG.

The most notable problem in this zone is the lack of knowledge about the fisheries resource.

Consistent with the DLUG, the purpose of this zone for fisheries management is to provide:

- -opportunities for high quality sport fishing in a remote setting

The rationale for establishing this zone is that:

- -this zone has been given special status in the District Land Use Guidelines
- -almost all of the area consists of Crown or public lands
- -very little fishing pressure currently exists on most of the waters in this zone
- -the area is remote with limited access

C. Fisheries Management Strategies

It should be noted that an integrated Resource Management Plan will be prepared for this zone. In the interim, the management strategy for this zone will be:

- -to acquire scientific knowledge about fish communities and habitats on selected waters within the zone

4.0 IMPLEMENTATION

4.1 General Background

Consistent with the planning period established for the Ministry's strategic land use planning exercises, this Fisheries Management Plan provides direction for fisheries management activities in the Parry Sound District to the year 2000. In addressing fisheries management issues, the Plan will ensure that all management strategies and tactics implemented by the District will achieve program objectives and targets in accordance with the Ministry's overall goals and objectives.

The strategies and tactics identified in this Plan will be implemented through:

(a) the preparation of a Five Year Implementation Schedule: outlining programs and projects proposed to be undertaken over the next five year period;

(b) the preparation of annual work plans outlining specific programs and projects to be approved and funded through the Ministry's budgeting process;

(c) co-operative efforts with local sportsmen's organizations and private interest groups under the Community Fisheries Involvement Program;

(d) the review and approval of work plans and development proposals from municipalities, private landowners and other government agencies; and

(e) input or participation in other Ministry of Natural Resources resource programs, (i.e. timber management plans).

It is intended that the Implementation Schedule provided in this Plan will be reviewed internally by District staff on an annual basis. These informal reviews will determine if amendments to the Implementation Schedule or the Plan itself will be required in response to changes in scientific knowledge, management techniques or resource information. The intent of these reviews is to ensure maximization of the effectiveness and efficiency of programs implemented through this Plan.

All amendments to this Plan, where deemed appropriate, will be undertaken in accordance with the process outlined in the Ministry's "Procedures for Amending District Land Use Guidelines". When amendments are proposed which may affect the public, public review and approval of the District Manager and the Regional Director will be required. In these instances, the District will determine the "public" to be consulted, will select the appropriate methods of public consultation to be followed and will document all public responses.

All Implementation Schedules, prepared subsequent to the initial five year planning period, will also be subject to the review of the public and the approval of the District Manager and the Regional Director.

4.2 Implementation Schedule

Management strategies and tactics intended to address fisheries resource problems and issues within Parry Sound District have been selected and identified in this Plan. The specific management activities to be implemented over

the initial five year period of the Plan are summarized in Table 2 and detailed in Table 3.

Annual work plans, intended to implement selected management strategies and tactics, will be developed in accordance with the priorities established in the Implementation Schedule.

Projects relating to specific management tactics not identified in the initial five year Implementation Schedule (1987-1991) will be identified and priorized in subsequent Implementation Schedules.

Programs to be undertaken during the first Five Year Implementation Schedule have been classified according to management zone and funding source.

In recent years, management projects such as rehabilitation, and stocking of warmwater species have been carried out by local sportsmen and interest groups under the Community Fisheries Involvement Program. The Implementation Schedule, although not identifying specific projects to be carried out by local groups, does provide direction for such future programs.

All fisheries projects are subject to the requirements of the Environmental Assessment Act. As a result of complying with class assessment requirements there may be changes in the order of completion of projects identified in this Plan.

4.3 Summary of Management Emphasis (1987-1991)

The major emphasis of fisheries management in Parry Sound District will focus on meeting fisheries targets through the maintenance of natural self-sustaining populations of fish. To accomplish this, selected projects will emphasize:

(i) the inventory, protection and maintenance of important fish habitats (spawning, nursing, feeding grounds and migratory routes); and

(ii) the measurement (assessment) of exploitation and the prevention of over-exploitation.

Several historically important fish populations have experienced declines for various reasons (e.g. Moon River walleye, Shawanaga River walleye, Big Sound lake trout, etc.). In recent years, a great deal of effort and money has been spent to rehabilitate these populations. The District proposes to continue these efforts as a high priority over the next five years.

Since 1980, Parry Sound District has actively sought public assistance in managing fisheries resources. This has been provided by groups such as cottage associations, tourist outfitters and municipal councils. The District intends to continue to seek and encourage this form of assistance.

The Community Fisheries Involvement Program (C.F.I.P.), initiated in 1983, has focused on public involvement in local fisheries management projects. The District will continue to encourage public participation through C.F.I.P. projects which the Ministry considers to be worthwhile.

Fluctuating water levels during critical time periods (spawning and incubation) have been shown to seriously impact fisheries resources within the District. To reduce this impact, the District recently prepared an operational plan for water level control on the

TABLE 2. SUMMARY OF FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE, 1987 - 1991

FUNDING PRIORITY	STRATEGY PRIORITY	APPLICABLE MANAGEMENT ZONE
1. Strategies / Programs Based on Existing Funding.	Identify, Protect and Maintain Important Fish Habitats	All Zones
	Prevent Over-Exploitation	All Zones
	Rehabilitate (Re-Build) Historically Important Fish Populations	All Zones
	Involve Public In Fisheries Management (C.F.I.P., etc.)	All Zones
	Maintain Water Levels and Flows During Critical Periods (Spawning, Incubation, etc.)	All Zones
	Create a Well Informed Public	All Zones
	Update Existing and Provide New Fisheries Knowledge	1, 2
	Meet Demand For Coldwater Fishing Opportunities	2
	Document Changes in the Acidity of the Aquatic Environment	1, 2
2. Strategies / Programs Pending Additional Funding.	Identify, Protect and Maintain Important Fish Habitats	All Zones
	Prevent Over-Exploitation	All Zones
	Rehabilitate (Re-Build) Historically Important Fish Populations	All Zones
	Update Existing and Provide New Fisheries Knowledge	All Zones
	Provide Quality Angling Opportunities	3, 4
	Create a Well Informed Public	All Zones
	Determine if Any Rare and Endangered Fish Species Inhabit District Waters	All Zones

Pickerel River watershed which provides for the protection of fisheries resources during critical time periods. It is intended that similar operational plans will be prepared over the next five years on other watersheds in the District (e.g. Magnetawan, Moon-Musquash).

An integral part of the fisheries management program in Parry Sound District is keeping the public informed on issues of local concern. Time and monies will continue to be devoted to upgrading District brochures and flyers pertaining to fish habitats, fish communities and fishing opportunities.

Investigative work has always been an important component of fisheries management efforts within the District. Updating and expanding existing fisheries knowledge is an ongoing process that must be continued. To this end, emphasis will be placed on waters where over-exploitation is suspected and where rehabilitation efforts are taking place. As additional funds become available, aquatic habitat inventories and intensive trap and/or gill net surveys will be conducted on waters within the Parry Sound Wildlands and Restricted Area Access Fisheries Management Zones.

The ultimate success of fisheries management efforts in the District will in part be dependent on directing enforcement efforts to problem areas. Consequently, the District intends to prepare a Fisheries Enforcement Plan within the initial five year planning period. The plan will provide direction to enforcement personnel on where to concentrate enforcement efforts and will provide a valuable tool for evaluation when conducting audits of the overall enforcement program within the District.

Sport fish targets for coldwater species within the District will, in part, be met by planting lake trout into lakes which cannot sustain natural reproducing populations, brook trout into suitable headwater lakes, rainbow trout into small lakes and F_1 splake into marginal lake trout or brook trout lakes. Demand for warmwater and coldwater sport fishing opportunities will be met by maintaining, protecting and rehabilitating existing fish communities.

TABLE 3: Fisheries Management Implementation Schedule
1987-1991 - Parry Sound District

This table is divided into two sections:

1) Programs which can be carried out at existing funding levels

2) Programs which could be carried out with additional funding

* Programs where the assistance of volunteer groups, C.F.I.P., cottage associations, organized townships, municipalities, etc will be encouraged.

All strategies and tactics mentioned in the plan will not necessarily be carried out in the first five year Implementation Schedule. The completion of the planned actions (strategies and tactics) presented in the schedule will be dependent on the availability of funding and personnel.

Table 3

FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE 1987 - 1991 PARRY SOUND DISTRICT

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
All Zones	IDENTIFY, PROTECT AND MAINTAIN IMPORTANT FISH HABITAT	All waterbodies		Loss and degradation of fish habitat
	- Enforce legislation which is applicable to habitat protection - Fisheries Act - Public Lands Act - Beach Protection Act - Lakes and Rivers Improvement Act		1	
	- Review applications relating to work on/near water. Where necessary conduct site inspections and make recommendations to ensure that fish habitats are protected		1	
	- Review Municipal planning documents and liase with other agencies to ensure habitat protection		1	
	- Review subdivision plans and severence applications for lands fronting water; make recommendations to ensure important fish habitats are protected		1	
	- Develop a scientific methodology for classifying and mapping important fish habitats		2	
	- Prepare and implement a District Fisheries Enforcement plan which will priorise the District enforcement effort in line with District fisheries objectives and which will identify and direct attention to specific fisheries enforcement problems - conduct annual audits of the enforcement program		1	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
All Zone	PREVENT OVER-EXPLOITATION	All waterbodies		Over-exploitation
	- Implement the following on selected waters known to be over-exploited		1	
	- reduce daily limits		1	
	- reduce seasons, especially during vulnerable periods (e.g. walleye pre-spawning period)		1	
	- implement fish sanctuaries or extend season closures		1	
	- control or restrict access		1	
	- Direct enforcement effort at problem areas; prepare and implement a District Fisheries Enforcement Plan; increase enforcement activity		1	
	- Encourage or designate catch and release fishing only for part or all of the open season		1	
	- Discourage fish derbies which target on sport species; encourage fish derbies which target on undesirable fish species (e.g. rock bass, pumpkinseed, ling, etc)		1	
	MAINTAIN WATER LEVELS AND FLOWS DURING CRITICAL PERIODS (ie. spawning, incubation)			Loss and degradation of fish habitat
	- Evaluate existing operating plans for MNR water control structures (dams) to ensure that consideration is given to spawning fish and incubating eggs; seek revisions to plans where warranted	Watersheds Pickerel/Wolf R. Magnetawan R. Moon/Musquash R. Harris/Naiscoot R. Boyne R.	1	
	- Operate M.N.R. dams according to the existing or revised operating plans: Conduct field audits to ensure that the operating plan is being followed		1	

- Work with the private sector in developing private dams which will give consideration to spawning fish and incubating eggs; Encourage adherence to the operating plan	Watershed Seguin R.	1	
CREATE A WELL INFORMED PUBLIC REGARDING FISHERIES MANAGEMENT AND RESOURCE UTILIZATION			Lack of public awareness
- Prepare and distribute fact sheets, brochures, news releases on subjects pertaining to fish and fishing		1	
- Send information package to waterfront property owners regarding M.N.R.'s interest in protecting fisheries habitat and the owners obligation in obtaining proper authority for doing work along shorelines		1	
- Send registered letters to all construction contractors in the District regarding their responsibility (e.g. when working along shorelines: List of contractors to be updated and letters sent out once every three to five years. Send a copy of the letter and list of contractors to building inspectors of local municipalities.		1	
- Hold public meetings to discuss: - the results of investigative surveys conducted by M.N.R. - Fisheries Management recommendations		1	
- Develop a comprehensive fisheries education program as an integral part of a District External Communication Plan		2	
- Hire a Fisheries Education Officer (seasonal position)		2	
- Upgrade fisheries content in the External Communication Plan		2	
- Prepare an audio-visual program which covers all aspects of fisheries management: Present the audio visual program to cottage associations, Township councils, user groups and the general public		2	
- Promote utilization of coarse fish		2	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
All Zones	**UPDATE EXISTING AND PROVIDE NEW FISHERIES KNOWLEDGE**			Inadequate fisheries knowledge
	- Have fisheries personnel attend seminars and courses relating to new fisheries technology		1	
	- Have fisheries personnel read fisheries journals and other pertinent literature which is applicable to fisheries management in the Parry Sound District			
	- Investigate and develop a creel census survey design to measure current sport fishing effort and harvest by species for each Management Zone		2	
	- Undertake investigative studies to determine why important fish stocks are/have been depressed		2	
	- Conduct intensive trap net and/or gill net surveys on select waterbodies to monitor status of fishery (relative abundance in community composition; age-class composition)	Waters to be selected	2	
	- Determine the potential for establishing natural self-sustaining walleye populations in select waterbodies	Waters to be selected	2	
	- Conduct standard aquatic habitat inventory surveys on select waterbodies	Waters to be selected	2	
	- Prepare a District Fish Stocking Plan	All waterbodies that will be stocked	1	

INVOLVE PUBLIC IN FISHERIES MANAGEMENT			Lack of public awareness
- Encourage cottage associations, fishing clubs, tourist outfitters, and private individuals to get involved in fisheries management projects through CFIP and other volunteer programs		1, 2A	
- Encourage public assistance and participation in matters relating to enforcement (Report a Poacher Program) by: - reporting violations of fisheries regulations		1, 2A	
- Provide fisheries extension service to promote fisheries benefits on private land		1	
DETERMINE IF ANY ENDANGERED OR RARE FISH SPECIES INHABIT DISTRICT WATERS			Inadequate fisheries knowledge
- Conduct surveys to determine if any endangered or rare fish species inhabit district waters		2	
- Send any unknown fish specimen taken from District waters to the Royal Ontario Museum for positive identification		1	
DOCUMENT CHANGES (THROUGH TIME) IN THE ACIDITY OF THE AQUATIC ENVIRONMENT			Loss and degradation of fish habitat
- Maintain contact with other agencies and study groups who are doing acid rain studies in the Parry Sound District. Record and file important data which comes from the various studies		1	
- Monitor pH and total inflection point (TIP) alkalinity levels on a 2 or 3 year rotational basis for the five major rivers flowing into Georgian Bay. Monitoring to be done before, during and after the spring freshet in co-operation with Ministry of the Environment (MOE) and the Department of Fisheries and Oceans (DFO), etc.	Pickerel R. Magnetawan R. Shawanaga R. Seguin R. Moon R. Musquash R.	2	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
Management Zone #1 Eastern Georgian Bay	REHABILITATE BIG SOUND TROUT FISHERY	Big Sound (Carling and McDougall Twps)		
	- Collect 100,000 lake trout eggs in 1987 - gradually increasing annual collection to 150,000 by 1991		1	Loss and degradation of fish habitat
	- Plant 50,000 lake trout in 1987 - gradually increasing annual planting to 100,000 by 1991		1	Detrimental effects of non-native and coarse fish species
	- Plant 40,000 hybrid lake trout in 1987 - gradually reducing annual plantings to zero by 1991		1	Over-exploitation
	- Control/reduce harvest of lake trout and hybrid trout by:			Absence of a desirable fish community
	- reducing daily catch limit to 2 (1988)		1	
	- alter season length as required		1	
	- plant 4,000 yearling rainbow trout in alternate years to divert some of the fishing effort from lake trout to rainbow trout		2	
	- designate the waters known as the Big Sound for special treatment under the Ontario Fishery Regulations		1	
	- Assess the effectiveness of management action:			
	- intensive creel survey - 1988, 1991		1	
	- Monitor and document spawning activity of planted lake trout, native lake trout and hybrid lake trout - 1987, 1989, 1991		1	
	- Monitor and document reproductive success of lake trout and hybrid lake trout - 1988, 1990		2	

REHABILITATE THE MOON RIVER WALLEYE FISHERY			
- Plant 150,000 summer fingerling walleye annually. Alternate plantings between Iron City Bay and Moon River - Woods Bay (this may be phased out in the near future, pending assessment results)	Moon R., Woods Bay, Blackstone harbour and Iron City Bay	1, 2A	Loss and degradation of fish habitat Absence of a desirable fish community
- Assess the effectiveness of management actions and determine what additional management actions are required (if any):			
- monitor and document the relative abundance and age-class composition of the spawning population during spring spawning run	Moon R., Horseshoe Falls	1	
- undertake fish harvest surveys (creel census survey) - 1988, 1991	Moon R., Woods Bay, Blackstone Harbour, Port Rawson Bay, Iron City Bay,	1	
- determine the success of fingerling plantings and natural reproduction by fall electrofishing	Woods Bay, Moon R., Port Rawson Bay, Blackstone Harbour	1	
- consult with the public regarding proposed new management actions		1A	
- Create a new walleye spawning bed in an area where water level fluctuations are minimal during the walleye spawning and incubation period	Moon R. at MNR cabins	2	
- Enlarge the existing walleye spawning grounds	Horseshoe Falls in Blackstone Harbour	2	
REHABILITATE THE SHAWANAGA RIVER AND NARES INLET WALLEYE FISHERY			Absence of a desirable fish community
- Assist C.F.I.P. group in culturing and planting of 100,000 summer fingerlings walleye annually	Shawanaga R. (Archipelago) Nares Inlet (Archipelago)	2A	
- Conduct studies to determine the cause(s) of poor reproductive success	Shawanaga Falls	2A	
- fertilize and incubate walleye eggs in portable hatchery at the Shawanaga Falls		2A	
- compare hatching success at Shawanaga Falls with a control set up at the Pointe au Baril fish hatchery		2A	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
Zone 01	- Assess the success of management actions and determine what additional management actions are required by:	Pointe au Baril area Shawanaga R. Nares Inlet	1	
	- conducting an intensive creel survey in 1989		1	
	- determining the success of fingerling plantings and natural reproduction by fall electrofishing		1	
	- determining the relative abundance and age-class composition during spring spawning runs by trap netting at index fishing sites - 1990		1	
	- consult with the public regarding proposed new management actions		1A	
	- Encourage C.F.I.P. group to continue the white suckers removal program at Shawanaga Falls. This program was initiated by M.N.R. in 1983	Shawanaga Falls	1A	
	REHABILITATION OF KEY RIVER WALLEYE POPULATION	Key River (Henvey)		Promotion of a more desirable fish community
	- Assist local C.F.I.P. group in culturing and planting 75,000 summer fingerlings annually		1A	
	- Create access to some of the former spawning sites and improve and enlarge existing spawning sites for walleye		2A	
	- Assess the success of planted fingerlings and natural reproduction during the fall period - electrofishing 1987, 1989, 1991		1, 2A	
	REHABILITATE COLDWATER FISHERY IN THE OPEN WATERS OF EASTERN GEORGIAN BAY	Shebeshekong R. (Carling)		Promotion of a more desirable fish community
	- Plant 400,000 yearling hybrid lake trout annually commencing 1991	Limestone Islands	1	

- Establish a fish sanctuary to protect planted fish from over-exploitation - 1990	Limestone Islands	1	
- Consider planting fingerling chinook salmon in the open waters (ie. by C.F.I.P.)	Open waters	2A	
UPDATE EXISTING AND PROVIDE NEW FISHERIES KNOWLEDGE			Inadequate fisheries knowledge
- Determine sport fishing quality for the three major sport fish species - smallmouth bass, northern pike and walleye - extensive creel census 1988, 1990	Moon R. area Five Mile Bay area Big Sound area Snug Harbour- Dillon area Pointe au Baril area Bayfield area Britt area	2 2 2 2 2 2 2	
- Annually determine the relative abundance of the major commercial fish species from the monthly reports (CF 1's) provided by the commercial fishermen	Quota Zone 2, 5, 7	1	
- Conduct an index fishing survey for lake whitefish and chub with standard index fishing nets. 1989 and 1991	Quota Zone 2	2	
- Conduct an index fishing survey for yellow perch. 1988, 1991	Quota Zone 7	2	
- Collect and prepare samples of important commercial fish for contaminant analysis (1988)	Quota Zone 2, 5, 7	2	
- Determine cause(s) for apparent decline in the walleye population at Bayfield - determine what spawning population supports the sport fishery at Bayfield - trap netting and tagging - determine the condition and size of the spawning grounds - determine the total annual mortality of the Bayfield population	Bayfield area	1, 2	
- Determine the effectiveness of a fish sanctuary by: - conducting an intensive fish harvest survey (creel census) - 1989 - conducting intensive trap netting and tagging in a sanctuary as well as a control area - 1989	Twelve Mile Bay	2A	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
Zone #1	- comparing the results of the 1989 surveys with the 1984 and 1985 surveys - 1989			
	- Determine the potential for establishing natural self-sustaining walleye populations at the following sites (1987)	Boyne R. (Foley) Seguin R. (McDougall)	2	Inadequate fisheries knowledge
	- Maintain a viable commercial fishery		1	
	- Protect Rare and Endangered Species - implement a zero quota for lake sturgeon		1	
Management Zone #2 Inland Multiple Resource Use	PREVENT OVER EXPLOITATION			Over-exploitation
	- Consider implementing the following on waters suspected of being over-exploited - reduce daily limits for walleye and pike - reduce seasons, especially during vulnerable period for walleye and pike - implement sanctuaries on select areas within a waterbody - increase enforcement	Manitouwabing (McKellar) Whitestone (Hagerman) Doe (McMurrich) Cecebe (Ryerson, Chapman)	1	
	- Assess the biological impact of regulation changes	Manitouwabing (McKellar) Whitestone (Hagerman) Doe (McMurrich) Cecebe (Ryerson, Chapman)	2	
	REHABILITATE DEPRESSED FISH STOCKS			Detrimental effects of native and coarse fish
	- Lend technical and monetary support to local C.F.I.P. groups to: - culture and stocking of walleye summer fingerlings - coarse fish removal -(smelt)	Ahmic Lk (Croft) Caribou Lk (McConkey) Lower Pickerel R. (Blair) (below Dollars Dam)	2A	
	- Continue walleye summer fingerling planting through District's Walleye Culture Program	Ahmic Lk (Croft) Blackstone Lk (Foley)	2A 1, 2A	

- On a rotational basis, assess the effectiveness of walleye plantings by electrofishing and/or netting surveys and/or creel survey	Blackstone Lk (Foley)	1
	Lower Pickerel R. (Blair)	2
	Caribou Lk (McConkey)	2
	Ahmic Lk (Croft)	2
- Assess the effectiveness of spawning ground improvement projects by monitoring usage	Manitouwabing (McKellar)	2A
	Whitestone (Hagerman)	2A
	Blackstone (Archipelago)	2A

UPDATE EXISTING AND PROVIDE NEW FISHERIES KNOWLEDGE

- Conduct inventory of Sensitive Fisheries habitat			Inadequate fisheries knowledge
- Phase 1 - classify and map existing fish habitat through interviews with knowledgeable MNR staff and public	Horseshoe (Foley)	1	
	Otter (Foley)	1	
	Shebeshekong (Carling)	1	
	Lk of Many Islands (Lount)	1	
	Deer (Lount)	1	
	Wauquimakog (Wilson)	1	
	Caribou (McConkey)	1	
- Phase 2 - verify sensitive habitat identified in Phase 1 through development and implementation of a scientific methodology for classifying fish habitat. Apply the methodology	Lorimer (Hagerman)	2	
	Blackstone (Conger)	2	
	Mill (McDougall)	2	
	Kapikog (Conger)	2	
	Healey (Conger)	2	
	Wahwashkesh (McKenzie)	2	
	Whitestone (Hagerman)	2	
	Doe (McMurrich)	2	
	Ahmic (Croft)	2	
	Cecebe (Chapman)	2	
	Manitouwabing (McKellar)	2	
- Conduct sport fishing surveys (creel census) to determine angling effort, harvest and fish quality (once every five years)	Whitestone (Hagerman)	1	
	Lorimer (Hagerman)	2	
	Wauquimakog (Wilson)	2	
	Caribou (McConkey)	2	
	Deer (Lount)	2	
	Gooseneck (Burton)	2	
	Manitouwabing (McKellar)	1	
	Doe (McMurrich)	1	
	Ahmic (Croft)	1	
	Wahwashkesh (McKenzie)	1	
	Lk of Many Islands (Lount)	2	
	Six Mile (Harrison)	2	
	Mill (McDougall)	2	
	Otter (Foley)	2	
	Go Home (Geo Bay)	2	
	Cecebe (Ryerson)	1	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
Zone #2	- Conduct intensive trap net and/or gill net surveys on select waterbodies (once every five years on priority 1 lakes) to monitor status of fishery (relative abundance, fish species, composition and age-class structure of sport species)	Manitouwabing (McKellar)	1	
		Ahmic (Croft)	1	
		Cecebe (Chapman)	2	
		Healey (Conger)	1	
		Doe (McMurrich)	1	
		Wahwashkesh (McKenzie)	1	
		Gooseneck (Burton)	2A	
	- Where important fish stocks are/have been identified as being depressed, undertake investigative studies to determine cause(s) of declines	Isabella (Christie)	2	
		Wahwashkesh (McKenzie)	2	
	- Obtain and record accurate information relating to baitfish harvest through development of an improved reporting system		2	
	- Conduct investigative studies to determine current fisheries status (relative abundance, composition of fish species and age-class composition) on major riverine systems	Magnetawan	2	
		Harris-Ma[illegible]	2	
		Shawanaga	2	
		Seguin	2	
		Musquash	2	
		Gibson	2	
	- Assess the success of the fish planting program on an ongoing basis. Depending on the results, adjust the stocking plan accordingly	All waterbodies planted with fish	1	
	MEET DEMAND FOR COLDWATER SPORT FISHING OPPORTUNITIES NOTE: The following is a tentative listing of lakes to be planted. Changes may occur pending the results of assessment surveys			Over-exploitation Loss and degradation of fish habitat Detrimental effects of non-native and coarse fish
	- Plant lake trout (in alternate years) in lakes which are not presently supporting a self-sustaining lake trout population	Forget (Foley)	1	
		Flaxman (Christie)	1	
		Little Seguin (Christie)	1	
		Trout (McDougall)	1	

	Lorimer (Hagerman)	1	
	Blackstone (Conger)	1	
	Star (Christie)	1	
	Otter (Foley)	1	
	Clear (Humphrey)	1	
	Sucker (Humphrey)	1	
	Portage (Humphrey)	1	
	Tiffin (Humphrey)	1	
	Whitefish (Humphrey)	1	
	Caribou (McConkey)	1	
	Wauquimakog (Wilson)	1	
	Fairholm (Hagerman)	1	
	Darlington (McDougall)	1	
- Plant F1 splake in marginal lake or brook trout lakes	Horseshoe (Foley)	1	
	Rankin (Foley)	1	
- Plant brook trout in small headwater lakes which are suitable for brook trout	Lake 042 (Christie)	1	
	Weeden (Christie)	1	
	Lake 043 (Foley)	1	
	Cadge Rd Lake (Hagerman)	1	
	Otter (Hagerman)	1	
	Petty (Humphrey)	1	
	McCan (Humphrey)	1	
	Corfe (McDougall)	1	
	Wild's (McMurrich)	1	
- Plant rainbow trout in lakes marginal for brook trout or F1 splake in alternate years	Liebeck (Christie)	1	
	Mahon (Christie)	1	
	Speyer (Cowper)	2	
	Clear (Hagerman)	2	
	Fair (Humphrey)	2	
	Hammel (Humphrey)	2	
	Mirror (Humphrey)	2	
	Boy (McDougall)	2	
	Unnamed (McDougall L20/C12)	2	
	Greer (McDougall)	2	
	Minnowtrap (McKenzie)	2	
	Oastler (Foley)	2	
- Assess the success of the fish planting program on an ongoing basis. Depending on the results, adjust the stocking plan accordingly	All planted waterbodies	1	Inadequate supply of hatchery reared fish

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
Zone #2	ESTABLISH SELF-SUSTAINING POPULATIONS OF LARGEMOUTH BASS			Absence of a desirable fish community; Promotion of a more desirable fish community
	- Plant sub-adult largemouth bass in the following lakes. Plant 4 lakes per year over the next 5 years. The first priority will go to lakes which presently do not contain a sport fish population and have excellent habitat for largemouth	Bear (Monteith)	2A	
		Deer (Lount)	2	
		Rainy (Ryerson)	2	
		Turtle (Humphrey)	2	
		Round (McMurrich)	2	
		Buck (McMurrich)	2	
		Blackwater (Christie)	2	
		DeBois (McKenzie)	2	
		Balsam (McConkey)	2	
		Clear (Burton)	2	
		Gordon (McKenzie)	2	
		Hughes (Chapman)	2	
		Good's (Monteith)	2	
		Spectacle (Christie)	2	
		Gooseneck (Burton)	2	
		Sugar (Christie)	2	
		Third (Foley)	2	
		Ten Mile (Monteith)	2	
		Campbell (McDougall)	2	
		Taylor (McKenzie)	2	
		Pickering (Humphrey)	2	
	- Assess the success of largemouth bass introductions	McLean (Christie)	2	Inadequate fisheries knowledge
		Carruthers (Christie)	2	
		Plate (Foley)	2	
		Tabor (McMurrich)	2	
		Gilbank (Humphrey)	2	
		Crawford (Croft)	2	
		Love (Croft)	2	
		Mosquitoe (Freeman)	2	
		Fume (Christie)	2	
		Wilcox (Conger)	2	
		Shanty (McKellar)	2	
		Little Manitouwaba (Christie)	2	
		Nine Mile (Ferguson)	2	

		Tatai (Foley)	2	
		Santa (Christie)	2	
		Additional lakes as introductions occur	2	
	CREATE A WELL INFORMED PUBLIC			Lack of public awareness
	- Provide expertise and guidance (upon request), regarding the building of fish ponds; the selection of fish species for each pond and lakes surrounded by private land	All areas in Zone #2	1	
Management Zone #3 Restricted Access Area	UPDATE EXISTING AND ACQUIRE NEW KNOWLEDGE ABOUT FISH COMMUNITIES, HABITAT AND FISHING QUALITY			Inadequate fisheries knowledge
	- Conduct standard aquatic habitat inventory surveys	Kashegaba (Burton)	2	
		Bolger (Burton)		
	- Conduct intensive trap and/or gill net surveys	Lower Marsh (Ferguson)	2	
		Wallace (E. Burpee)	2	
		Big Deer (Ferrie)	2	
		Snoeshoe (Ferrie)	2	
		Squaw (Blair)	2	
		Swan (McConkey)	2	
		Kashagaba (Burton)	2	
		Bolger (Burton)	2	
	- Select additional waters for obtaining new knowledge (1987 - 1988)	Waters to be selected		
	PROVIDE QUALITY ANGLING OPPORTUNITIES (less than 3 rod hours per lake trout caught; less than 1 rod hour per warmwater and coolwater sportfish caught)			Promotion of a more desirable fish community
	- Maintain restricted access as outlined in D.L.U.G.	All Zone #3	1	
	- Designate specific waters in the Zone for special treatment (e.g. catch and release fishing, slot size limits, etc.) in Ontario Fishery Regulations	Waters to be selected	2	
	- Limit/control fish harvest as required to maintain high angling quality	Waters to be selected	2	

Funding Priority
1 - present funding
2 - additional funding
A - CFIP or volunteer assistance encouraged

MANAGEMENT ZONE	STRATEGY - tactic	LOCATION Waterbody (Township)	FUNDING PRIORITY	PROBLEM/ISSUE
Zone 03	PROMOTE HARMONY AMONG FISHERY RESOURCE USERS			
	- Assign selected larger remote lakes where tourist outfitters may establish outpost camps	Lakes to be chosen pending inventory studies	2	Conflicts among users of the fishery resource
	- Encourage a voluntary reporting system for tourist outfitters who have outpost camps: reporting effort, catch and harvest of each group that uses the outpost camp		1	
Management Zone 04 Parry Sound Wildland	UPDATE EXISTING AND PROVIDE NEW FISHERIES KNOWLEDGE			
	- Select waters for obtaining new knowledge (1987 - 1988)		1	Inadequate fisheries knowledge
	- Conduct standard aquatic habitat inventory surveys on selected waters		2	
	- Conduct intensive trap and/or gill net surveys on selected waters		2	
	PROVIDE QUALITY ANGLING OPPORTUNITIES (less than 1 rod hour per warmwater and coolwater sportfish caught)			Promotion of a more desirable fish community
	- Select waters that will be used to provide high angling quality		1	
	- Maintain restricted access as outlined in D.L.U.G.		2	
	- Designate specific waters in the zone for special treatment (e.g. catch and release fishing, slot size limits, etc.) in Ontario Fishery Regulations		2	

APPENDIX 1 A Summary of Public Response to the Parry Sound District Background Information and Optional Management Strategies and Tactics

The first phase of public review of the fisheries planning exercise in Parry Sound District involved a series of "open houses" held in Parry Sound, Magnetawan and Portage Lake. The public was invited to review and comment on the problems and issues facing District fisheries and to express opinions on possible management strategies and tactics. The following is a summary of the results of this exercise.

A SUMMARY OF PUBLIC RESPONSE TO THE PARRY SOUND DISTRICT BACKGROUND INFORMATION AND OPTIONAL MANAGEMENT STRATEGIES AND TACTICS

Introduction

The first phase of the public consultation segment of the district fisheries management planning exercise involved public review and comment on the problems/issues and the proposed management strategies and tactics as presented in the document entitled Parry Sound District Fisheries Management Plan - A Summary: Background Information, Problems and Issues, and Optional Management Strategies ("Backgrounder"). A series of three (3) Open Houses for public review of the document were arranged for the following centres and dates:

Parry Sound - M.N.R. Field Office

7 Bay Street
August 22, 1986
1:30 p.m. to 9:00 p.m.

August 23, 1986
10:00 a.m. to 5:00 p.m.

Magnetawan Community Centre
Magnetawan, Ontario

August 26, 1986
10:00 a.m. to 5:00 p.m.

M.N.R. Portage Lake Field Office on Highway #522 - near Grundy Park

August 27, 1986
10:00 a.m. to 5:00 p.m.

Communications Strategy

In order to ensure an opportunity for a reasonable public response to the "Open House" consultations a number of communication techniques were employed, as follows:

August 8, 1986

-58 letters of announcement and invitation sent to the executive of all known cottagers associations.

August 12, 1986

-Invitation letters sent to:

Resorts	- 153
Marinas	62
Trappers Councils	

August 12 and 13, 1986

Advance copies of the "Backgrounder" together with a covering letter were mailed to the following groups, etc.

Cottagers' Associations -	58
Media	26
C.F.I.P. Groups	6
Commercial Fishermen	8
Municipalities	15
Chamber of Commerce	2
Georgian Bay User Groups	12
Government Offices	6
Indian Bands	5
Businesses	3
TOTAL	141

Advertising

-Local radio station ran "spot" announcements from August 5, onward on a regular basis

-Interview with District Biologist, Lloyd Thurston on August 14.

-CKCO-TV Interview with Lloyd Thurston on August 22, 1986

-Two local newspapers ran paid advertisements on August 7 and August 8

News Releases

Initial release run in Parry Sound Beacon, August 8, 1986

-Parry Sound North Star August 5, 1986

-Almaguin News (Burk's Falls) August 13, 1986

-A "reminder" news release was run on August 22, 1986 and August 21, 1986 in the Beacon and the North Star respectively

Posters

-Commencing on August 5, 1986 approximately 65 posters were distributed by Conservation Officers in all villages, hamlets, stores, tourist outfitters, etc.

M.N.R. Staff Participation

The following M.N.R. staff were in attendance at the respective Open Houses to field questions from the public and explain the various aspects of the planning process.

Parry Sound - (Friday)

L. Thurston, E. McIntyre, J. Gardner, C. Hill, H. Rietveld (Regional Office), R. Christie (Regional Office)

Parry Sound - (Saturday)

L. Thurston, E. McIntyre, J. Gardner, C. Hill

Magnetawan - (Tuesday)

L. Thurston, E. McIntyre, J. Lovering, G. Pollock, H. Rietveld

Portage Lake - (Wednesday)

L. Thurston, E. McIntyre, J. Gardner, K. Henry

Final Distribution of "Backgrounders" and Questionnaires

Advance copies of the "Backgrounder" distributed	141
"Backgrounder" and questionnaires distributed (approximate number) at Open Houses	150
Additional "Backgrounders" in reply to requests	35
TOTAL	326

Public Participation

A total of 165 people attended the three (3) Open Houses. A "visitors book" was maintained at each location in which was listed the visitors name, address and affiliation--if any. The total attendance is summarized in Table 1 by Open House location and visitor classification. All those attending were offered a copy of the "Backgrounder" and requested to complete a questionnaire and return it to the District Office by September 30, 1986.

A total of 185 questionnaires were handed out, 150 (approximately) at the Open Houses plus 35 copies in reply to requests for the

"Backgrounder". A total of 19 replies were received for a response rate of 10.2%.

Problem	Total # of Respondents	# of Respondents Indicating Important
Over-Exploitation	18	17
Lack of Public Awarness	19	17
Inadequate Fisheries Knowledge	19	16
Detrimental Effects of Coarse and Exotic Fish	19	15
Inadequate Hatchery Supply	19	13
Habitat Loss and Degradation	17	13
Conflicts Among Resource Users	18	12

Additional problems suggested by the public were diverse in nature and for purposes of the record are listed below:

Additional Problems Strategies & Tactics	# of Respondents
Various detrimental affects of commercial fishing	5
Problems with water pollution-all forms	5
Increased public education	4
Increased enforcement	2
Lack of size limits -bass -walleye-pike	2
Increased stocking program	2
Control water levels - Ahmic Lake	2

GLOSSARY

The following definitions apply to this Plan only:

Angling Opportunity

A measure of recreational supply which is used to describe the number of times a resource or facility can be used (occasions of use) in a given time period. An opportunity is considered to average four rod hours in length for planning purposes.

Artificial Fishery

A fishery which is maintained entirely through plantings of hatchery reared fish in order to provide angling opportunities.

Baitfish

Any fish that are legally harvested by the commercial baitfish industry including any member of the minnow family Cyprinidae, except carp and goldfish; the mudminnow family Umbridae; the sucker family Catostomidae; the stickleback family Gasterosteidae; the trout-perch family Percopsidae; the sculpin family Cottidae; the genus Leucichthys of the whitefish family Coregonidae and the darter sub-family Etheostomatinae.

C.F.I.P.

Community Fisheries Involvement Projects are management projects which endeavour to improve and enhance local fisheries or supply additional angling opportunities to the public. The funds for the projects are in part supplied by the Ministry of Natural Resources, while the work is done by volunteers. Funding is available to any interest group that has a project which qualifies for assistance.

Coarse Fish

Includes common white sucker, red horse sucker, long nose sucker, catfish, bullheads, garpike, bowfin, smelt, ling, carp, rock bass and pumpkinseed.

Coldwater Fish

Fish species which prefer to live in waters which have summer temperatures below 15°C. Important fish species in this category include lake trout, hybrid lake trout, splake, brook trout, rainbow trout, coho salmon, chinook salmon, pink salmon, lake whitefish, lake herring, and deep water cisco (chub).

Commercial Fish

Any fish that can be legally harvested by the commercial fishing industry.

Coolwater Fish

Fish species (adult) which prefer to live in waters which have summer temperatures ranging from 15 to 22°C. Important fish species in this category include walleye, northern pike, smallmouth bass and yellow perch.

Fish Community

A combination of different fish species living and interacting in the same body of water.

Goal

A general purpose to which the Ministry aspires.

Important Fish Habitat

Any fish habitat required for the maintenance of a healthy fish population including spawning, nursery and feeding areas, as well as, travel routes.

Incidental Catch

That part of the total catch consisting of non-target species.

Management

The judicious use of means to achieve ends. Management may have various levels of intensity.

Non-Native Fish Species

A fish species which did not originally inhabit a waterbody in Ontario but was introduced by man.

Non-Resident Angler

An angler whose principal residence is outside of Ontario.

Northern Ontario

Northwestern and Northeastern Planning Regions include the following Districts: Dryden, Fort Frances, Ignace, Kenora, Red Lake, Sioux Lookout, Atikokan, Geraldton, Nipigon, Terrace Bay, Thunder Bay, Blind River, Espanola, North Bay, Sault Ste. Marie, Sudbury, Temagami, Wawa, Chapleau, Cochrane, Gogama, Hearst, Kapuskasing, Kirkland Lake, Moosonee, and Timmins.

Objective

A quantifiable and attainable end, which the Ministry's efforts are intended to accomplish.

Planning Area

The area for which a planning process is carried out, and for which a resource management plan is prepared.

Policy

The decision concerning the objectives to be achieved and the means of achieving them. For resource management planning, we are mainly concerned with the objectives, targets, and strategies.

Potential Annual Yield

The calculated amount of fish flesh that can be removed from a waterbody on a sustained basis without causing harm to the fish community.

Projected Demand

The estimated demand which will be placed on the fishery resource by the year 2000. Projected demand for inland waters is based on a 15% increase in population. Projected demand for Georgian Bay is based on a 25% increase in population and recent progress in rehabilitation programs.

Rare and Endangered Species

Fish species so designated by the Committee on the Status of Endangered Wildlife in Canada (C.O.S.E.W.I.C.).

Rehabilitation

This term may be applied to both fish populations and fisheries habitat. In both instances, rehabilitation denotes efforts to

enhance or restore a degraded or stressed situation.

Resident Angler

An angler whose principal residence is in Ontario. A local resident angler would be one who can fish an area on a day-use basis, i.e., travel to the area, fish, and return home on the same day.

Resource Management

The wise use of a particular resource such as fish to achieve a specific end.

Southern Ontario

Southern Planning Region includes the following Districts: Parry Sound, Bracebridge, Minden, Algonquin Park, Bancroft, Pembroke, Owen Sound, Wingham, Chatham, Simcoe, Aylmer, Huronia, Lindsay, Maple, Cambridge, Niagara, Tweed, Napanee, Carleton Place, Brockville, and Cornwall.

Sport Fish

Fish species which are generally sought by sport fishermen. These include walleye, lake trout, hybrid lake trout, splake, rainbow trout, brook trout, coho salmon, pink salmon, chinook salmon, northern pike, muskellunge, largemouth bass, smallmouth bass, black crappie and yellow perch.

Strategic Planning for Ontario Fisheries (S.P.O.F.)

Task force (in the form of working groups) established to assess the status of Ontario fisheries and to recommend courses of action or strategies for the future.

Strategy

Planned actions or measures to achieve a desired end.

Tactic

A specific method used to achieve one or more strategies.

Target

A quantified end to be achieved or completed by a specific date.

Target Species

Specific species of fish sought by a fisherman.

Warmwater Fish

Fish species which prefer to live in waters which have summer temperatures ranging from 22 to 30°C. Important fish species in this category include largemouth bass and black crappie.

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